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PREVENTION OF INCISIONAL HERNIA POST EMERGENCY LAPAROTOMY – A TIME TO CHANGE? A CASE SERIES

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Introduction: Emergency laparotomy, essential in controlling intraabdominal sepsis, is complicated by incisional hernia in about 30% of patients. Paradigm shifts in abdominal closure suggest prevention of incisional hernia at laparotomy with onlay mesh. Concerns arise with mesh insertion in the presence of sepsis. This study reports the early outcome of onlay mesh post emergency laparotomy.

Material & Methods: An ethically approved retrospective study was undertaken at Letterkenny University Hospital of consecutive patients undergoing emergency laparotomy for abdominal sepsis with onlay TIGR mesh (Novus Scientific, Uppsala, Sweden) insertion. TIGR mesh is a synthetic bio-absorbable mesh which undergoes a twostep degradation process following placement and neofascia creation. Mesh was inserted after a 4 cm clearance of the linea and sutured in place with continuous 2/0 prolene and 1 nylon closure through sheath and mesh at the initial operation or at completion of temporary abdominal closure. All patients received a wound bundle to reduce SSI incorporating wound protectors, double gloving, antibiotic, wound washout, peritoneal washout, subcutaneous suturing and incisional negative pressure therapy.

Results: 7 patients (5 female, mean age 60, range 32-84) underwent onlay mesh as part of their incisional hernia prevention program. All had purulent peritonitis and 1 had multiple procedures prior to final closure. Median Mannheim Peritonitis Index predicted mortality was 24%. The median APACHE II score was 11 (range 7-15), median POSSUM operative score was 15.6 and the median POSSUM predicted mortality was 16.9%. No incisional hernia were recorded in this case series. One superficial SSI was recorded at 40 days.

Conclusions: Initial experience with onlay mesh in septic patients is encouraging. While long term follow up is required, it supports the increasing paradigm shift of mesh insertion as a prophylactic measure to prevent incisional hernia.